SFUND RECORDS CTR
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MEMORANDUM

TO: Lynda Deschambault, Remedial Project Manager
Site Cleanup Section 1, SFD-7-1

THROUGH: Rose Fong, ESAT Task Order Manager (TOM) RF
Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00405058

DATE: June 1, 2009

SUBJECT: Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC QB02
CERCLIS ID NO.:	CAD042245001
Case No.:	38275
SDG No.:	Y4Q41
Laboratory:	CompuChem (LIBRTY)
Analysis:	1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Trace Volatiles Selective Ion Monitoring (SIM)
Samples:	20 Ground Water Samples (see Case Summary)
Collection Date:	April 7, 2009
Reviewer:	Santiago Lee, ESAT/Laboratory Data Consultants (LDC)

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

cc: Cynthia Gurley, CLP PO USEPA Region 4
Steve Remaley, CLP PO USEPA Region 9

CLP PO: [X] Attention [ ] Action

SAMPLING ISSUES: [ ] Yes [X] No

Data Validation Report - Tier 3

Case No.: 38275
SDG No.: Y4Q41
Site: Omega Chem OU2
Laboratory: CompuChem (LIBRTY)
Reviewer: Santiago Lee, ESAT/LDC
Date: June 1, 2009

I. CASE SUMMARY

Sample Information

Samples:	Y4Q41 through Y4Q60
Concentration and Matrix:	Low Concentration Water
Analysis:	1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Trace Volatiles SIM
SOW:	SOM01.2
Collection Date:	April 7, 2009
Sample Receipt Date:	April 8, 2009
Extraction Date:	Not Applicable
Analysis Date:	April 15 and 16, 2009

Field QC

Field Blanks (FB):	Y4Q62 and Y4Q68 (in SDG Y4Q61)
Equipment Blanks (EB):	Not Provided
Trip Blanks (TB):	Not Provided
Background Samples (BG):	Not Provided
Field Duplicates (D1):	Y4Q52 and Y4Q53
Field Duplicates (D2):	Y4Q55 and Y4Q56

Laboratory QC

Method Blanks & Associated Samples:

VBLKJH:	Y4Q42 through Y4Q45, Y4Q48 through Y4Q52
VBLKDO:	Y4Q41, Y4Q46, Y4Q47, Y4Q53 through Y4Q55, Y4Q57, Y4Q60
VBLKJK:	Y4Q58, Y4Q59, Y4Q56; storage blank VHBLKYA

Tables

1A: Analytical Results with Qualifications
1B: Data Qualifier Definitions for Organic Data Review

CLP PO Action

None.

CLP PO Attention

Results for 1,2-dibromo-3-chloropropane in samples Y4Q42 through Y4Q45 and Y4Q48 through Y4Q52 are qualified as estimated (J) due to calibration problems (see Comments A and B).

Sampling Issues

None.

Additional Comments

The laboratory performed manual integrations on calibrations and samples due to incorrect auto integration. Manual integrations were reviewed and found to be satisfactory and in compliance with proper integration techniques.

Matrix spike/matrix spike duplicate (MS/MSD) analysis was not required. Consequently, matrix-specific accuracy and precision could not be evaluated.

Standard preparation logs are not included in the data package and cannot be evaluated. This information was requested from the laboratory but has not been received to date. Data are not qualified in this report due to missing standard preparation logs.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services Volatile and Semivolatile Data Packages*;
- *USEPA Contract Laboratory Program Statement of Work for Organics Analysis, Multi-Media, Multi-Concentration*, SOM01.1, May 2005;
- *Modifications Updating SOM01.1 to SOM01.2*, Amended April 11, 2007; and
- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, June 2008.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	Parameter	Acceptable	Comment
1.	Holding Time/Preservation	Yes	
2.	GC/MS Tune/GC Performance	Yes	
3.	Initial Calibration	Yes	
4.	Continuing Calibration Verification	No	A, B
5.	Laboratory Blanks	Yes	
6.	Field Blanks	Yes	
7.	Deuterated Monitoring Compounds	Yes	
8.	Matrix Spike/Matrix Spike Duplicate	N/A	
9.	Laboratory Control Samples/Duplicate	N/A	
10.	Internal Standards	Yes	
11.	Compound Identification	Yes	

12.	Compound Quantitation	Yes	C
13.	System Performance	Yes	
14.	Field Duplicate Sample Analysis	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. Results for the following analyte are qualified as estimated due to a low relative response factor (RRF) in a continuing calibration verification (CCV) and are flagged "J" in Table 1A.

- 1,2-Dibromo-3-chloropropane in samples Y4Q42 through Y4Q45 and Y4Q48 through Y4Q52 and method blank VBLKJH

A RRF of 0.037 was reported for 1,2-dibromo-3-chloropropane in the 04/15/09 17:12 CCV. Since results are nondetected, false negatives may exist.

The RRF evaluates instrument sensitivity and is used in the quantitation of target analytes.

B. Results for the following analyte are qualified as estimated due to a large %D in a CCV and are flagged "J" in Table 1A.

- 1,2-Dibromo-3-chloropropane in samples Y4Q42 through Y4Q45 and Y4Q48 through Y4Q52 and method blank VBLKJH

A %D of -43.5% was reported for 1,2-dibromo-3-chloropropane in the 04/15/09 17:12 CCV. This value exceeds the ±40.0% validation criterion for opening CCVs.

The continuing calibration verification checks satisfactory performance of the instrument on a day-to-day basis.

C. The laboratory reported a sample quantitation limit of 0.050 ug/L for 1,2-dibromo-3-chloropropane. However, the instrument response for the 0.050 ug/L initial calibration standard was only 53 area counts with a signal-to-noise ratio of less than 1:5, which are very low (refer to pages 1103 and 1105 in data package). In the reviewer's professional judgment, the sample quantitation limit should be raised to 0.10 ug/L, the standard having a higher area count of 120 and a signal-to-noise ratio of greater than 1:5 (refer to pages 1111 and 1113 in data package). Non-detected results are reported as 0.10U in Table 1A.

ANALYTICAL RESULTS
Table 1A

Case No. : 38275 SDG No. : Y4Q41
Site : OMEGA CHEM OU2
Lab : COMPUCHEM
Reviewer : Santiago Lee, ESAT/LDC
Date : 06/01/09

QUALIFIED DATA
Concentration in ug/L

Analysis Type : Trace Level Water Samples for Volatiles SIM

Station Location :	2			3			4			5			6			7		
Sample ID :	Y4Q41			Y4Q42			Y4Q43			Y4Q44			Y4Q45			Y4Q46		
Collection Date :	4/7/2009			4/7/2009			4/7/2009			4/7/2009			4/7/2009			4/7/2009		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0		
Volatiles SIM	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
1,2-Dibromoethane	0.050U			0.050U			0.050U			0.050U			0.050U			0.050U		
1,2-Dibromo-3-chloropropane	0.10U		C	0.10U	J	ABC	0.10U	J	ABC	0.10U	J	ABC	0.10U	J	ABC	0.10U		C

Station Location :	8			9			10			11			12			13		
Sample ID :	Y4Q47			Y4Q48			Y4Q49			Y4Q50			Y4Q51			Y4Q52		D1
Collection Date :	4/7/2009			4/7/2009			4/7/2009			4/7/2009			4/7/2009			4/7/2009		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0		
Volatiles SIM	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
1,2-Dibromoethane	0.050U			0.050U			0.050U			0.050U			0.050U			0.050U		
1,2-Dibromo-3-chloropropane	0.10U		C	0.10U	J	ABC	0.10U	J	ABC	0.10U	J	ABC	0.10U	J	ABC	0.10U	J	ABC

Station Location :	14			15			16			17			18			19		
Sample ID :	Y4Q53		D1	Y4Q54			Y4Q55		D2	Y4Q56		D2	Y4Q57			Y4Q58		
Collection Date :	4/7/2009			4/7/2009			4/7/2009			4/7/2009			4/7/2009			4/7/2009		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0		
Volatiles SIM	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
1,2-Dibromoethane	0.050U			0.050U			0.050U			0.050U			0.050U			0.050U		
1,2-Dibromo-3-chloropropane	0.10U		C	0.10U		C	0.10U		C	0.10U		C	0.10U		C	0.10U		C

Val - Validity. Refer to Data Qualifiers in Table 1B.
Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.
CRQL - Contract Required Quantitation LImit
N/A - Not Applicable
NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs
FB - Field Blank, EB - Equipment Blank,
TB - Trip Blank, BG - Background Sample

ANALYTICAL RESULTS
Table 1A

Case No. : 38275 SDG No. : Y4Q41
Site : OMEGA CHEM OU2
Lab : COMPUCHEM
Reviewer : Santiago Lee, ESAT/LDC
Date : 06/01/09

QUALIFIED DATA
Concentration in ug/L

Analysis Type : Trace Level Water Samples for Volatiles SIM

Station Location :	20			21			Method Blank			Method Blank			Method Blank			Method Blank		
Sample ID :	Y4Q59			Y4Q60			VBLKDO			VBLKJH			VBLKJK			VHBLKYA		
Collection Date :	4/7/2009			4/7/2009														
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0		
Volatiles SIM	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
1,2-Dibromoethane	0.050U			0.050U			0.050U			0.050U			0.050U			0.050U		
1,2-Dibromo-3-chloropropane	0.10U		C	0.10U		C	0.10U		C	0.10U	J	ABC	0.10U		C	0.10U		C

Station Location :																		
Sample ID :	CRQL																	
Collection Date :																		
Dilution Factor :																		
Volatiles SIM	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
1,2-Dibromoethane	0.050																	
1,2-Dibromo-3-chloropropane	0.050																	

Val - Validity. Refer to Data Qualifiers in Table 1B.
Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.
CRQL - Contract Required Quantitation LImit
N/A - Not Applicable
NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs
FB - Field Blank, EB - Equipment Blank,
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TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," July 2007.

U The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.

L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.

R The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.